

**What is claimed is:**

1. An article management system wherein a noncontact electronic tag storing tag data is attached to an article to be managed in a management area, the system comprising:

5        a passage radio communication unit disposed in a passage section leading to the management area, the passage radio communication unit communicating with the noncontact electronic tag attached to the article passing through the passage section, and executing tag access processing to read  
10    the tag data stored in the noncontact electronic tag.

2. The article management system as claimed in claim 1, wherein the tag access processing includes:

interrogation communication processing of setting a part  
15    of predetermined data stored in the noncontact electronic tag as reference for determining a response timing for causing the noncontact electronic tag to transmit response data and transmitting specification data specifying the part of the predetermined data; and

20        repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by  
25    the passage radio communication unit collides with another.

3. The article management system as claimed in claim 2,  
wherein a limitation condition is set for terminating repetition  
of the repetitive processing regardless of whether or not  
5 collision avoidance is accomplished.

4. The article management system as claimed in claim 1,  
wherein the noncontact electronic tag stores inhibition  
detection-possible data indicating permission or inhibition  
10 of passage through the passage section, and wherein the passage  
radio communication unit executes the tag access processing  
when the passage radio communication unit detects the noncontact  
electronic tag attached to the article whose inhibition  
detection-possible data indicates inhibition of passage  
15 through the passage section.

5. The article management system as claimed claim 1,  
further comprising:

a user radio electronic medium capable of identifying  
20 each user and storing user data, the user radio electronic medium  
communicating with the passage radio communication unit,

wherein the passage radio communication unit is set to  
receive the user data from the user radio electronic medium.

25 6. The article management system as claimed in claim 1,

wherein the tag data is article-unique data capable of identifying each article, and includes at least one of unique ID given for each noncontact electronic tag and article data.

5           7. The article management system as claimed in claim 1,  
wherein the tag access processing includes at least one of access  
processing of transmitting an interrogation signal to the  
noncontact electronic tag and receiving a response signal from  
the noncontact electronic tag, multiple tag access processing  
10 of transmitting an interrogation signal to a plurality of  
noncontact electronic tags and receiving a response signal while  
reliably circumventing a collision, and simple tag access  
processing of transmitting an interrogation signal to a  
plurality of noncontact electronic tags and receiving a response  
15 signal while circumventing a collision to some extent.

8. A noncontact electronic tag storing inhibition  
detection-possible data indicating permission or inhibition  
of passage through the passage section as an application family  
20 identifier.

9. An article management method using a noncontact  
electronic tag storing tag data which is attached to an article  
to be managed in a management area, the method comprising:  
25       communicating with the noncontact electronic tag attached

to the article passing through a passage section leading to the management area; and

executing tag access processing to read the tag data stored in the noncontact electronic tag.

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10. The article management method as claimed in claim 9, wherein the tag access processing includes:

interrogation communication processing of setting a part of predetermined data stored in the noncontact electronic tag as reference for determining a response timing for causing the noncontact electronic tag to transmit response data and transmitting specification data specifying the part of the predetermined data; and

repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by the passage radio communication unit collides with another.

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11. The article management method as claimed in claim 9, wherein the tag access processing is executed for the noncontact electronic tag attached to the article whose passage is inhibited.

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12. The article management method as claimed claim 9,  
further comprising:

communicating with a user radio electronic medium capable  
of identifying each user and storing user data to receive the  
5 user data from the user radio electronic medium.

13. A computer-readable medium storing instructions for  
operating an article management system wherein a noncontact  
electronic tag storing tag data is attached to an article to  
10 be managed in a management area, said instructions comprising;

communicating with the noncontact electronic tag attached  
to the article passing through a passage section leading to  
the management area; and

executing tag access processing to read the tag data stored  
15 in the noncontact electronic tag.

14. The computer-readable medium storing instructions  
for operating an article management system as claimed in claim  
13, wherein the tag access processing includes:

20 interrogation communication processing of setting a part  
of predetermined data stored in the noncontact electronic tag  
as reference for determining a response timing for causing the  
noncontact electronic tag to transmit response data and  
transmitting specification data specifying the part of the  
25 predetermined data; and

repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by the passage radio communication unit collides with another.

15. The computer-readable medium storing instructions for operating an article management system as claimed in claim 13, wherein the tag access processing is executed for the noncontact electronic tag attached to the article whose passage is inhibited.

16. The computer-readable medium storing instructions for operating an article management system as claimed in claim 13, said instruction further comprising:

communicating with a user radio electronic medium capable of identifying each user for user and storing user data to receive the user data from the user radio electronic medium.